DOCUMENT RESUME

ED 154 220 CE 016 064

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TITLE An Inventory of Potential Teacher Behaviors in Vocational Education.
INSTITUTION Maryland Univ., College Park. Dept. of Industrial Education.
PUB DATE [77]
NOTE 28p.; For a related document see CE 016 065

EDRS PRICE MF-$0.83 HC-$2.06 Plus Postage.
DESCRIPTORS *Course Organization; Instructional Media; Laboratory Procedures; Observation; *Program Coordination; Secondary Education; Student Evaluation; *Teacher Behavior; Teacher Characteristics; Teacher Qualifications; Teaching Models; *Teaching Skills; *Teaching Techniques; Vocational Education; *Vocational Education Teachers

ABSTRACT

This inventory, which was reviewed by vocational educators, lists 206 appropriate teacher behaviors or skills divided into the following seven areas: (1) professional and related; (2) program and course organization; (3) teaching methodology; (4) laboratory management; (5) educational technology or media use; (6) student performance evaluation; and (7) observation. This inventory is expected to be used in a variety of ways including, but not limited to, planning vocational education teacher preservice and inservice training, teacher self development assessing and planning, instructional materials development in teacher education, and in defining a program description. (Author/JH)

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An Inventory

Of

Potential Teacher Behaviors

In

Vocational Education

by

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Introduction

This inventory of potential teacher behaviors was an attempt to put into perspective the kinds and range of competencies involved in the teaching of vocational classes at the secondary school level. The listing contains 206 items placed in seven different categories of teacher function. The categorization of such items without duplication in the various areas presents some difficulty since certain items appear to fit into more than one. The placement of such items in a particular category was largely an arbitrary decision on the part of the developer. A few such placements were made on recommendations from a panel of experts, who reviewed the materials.

The initial listing of 185 items was drawn up by the writer. These items were distributed to a group of experienced educators in the field of vocational education in the State of Maryland. These persons were asked to review the listing for completeness and to suggest additional items as deemed necessary. Twenty-one items were added in this process, and several of the original items were modified. The following is a listing of the persons involved in this review process.

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Dr. Benjamin C. Whitten
Baltimore City Schools

Mr. Donald S. Wilson
Montgomery County Schools

Intended Use of this Inventory of Teacher Behaviors: There are several uses that have been projected for this set of teacher behaviors.

1. The listing may be used at the teacher education level to identify competencies that need to be developed in pre-service and in-service programs.

2. The listing may be used by the individual teacher or a group of teachers to inventory their particular competencies or behaviors.

3. The inventory of behaviors may be used by supervisory personnel as an assist in the identification of needed competencies on the part of teachers in planning staff-development sessions or activities.

4. The listing of behaviors may be used to identify areas of need for instructional materials development in teacher education.

5. Such a listing also serves the purpose of defining or describing the scope of the teacher's involvement in the performance of the instructional role in vocational education.

The Nature of the Listing: The only form of ordering for the behaviors was to identify them with one of the seven different categories. No attempt was made to establish a ranking by importance or priority. Also, the items were not arranged in clusters within the larger seven classifications. Such a listing represents a form of base-line data from which the user may choose to work depending upon the objective that the individual or group is attempting to accomplish.

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Section I

Professional and Related Teacher Behaviors

This section on professional and related teacher behaviors contains a number of items that relate to such teacher competencies as interpreting vocational education, dealing with various school and community groups, analyzing problem situations, relating vocational education to school and societal trends, and a variety of operational functions. The listing is limited to those behaviors that would not be included under the more specific categories in the subsequent sections of this collection. Each item represents a form of behavior that may be expected of a teacher of vocational eudcation at the secondary level.

PROFESSIONAL AND RELATED TEACHER BEHAVIORS

The teacher is able to:

1. interpret the definition of vocational education to non-vocational education personnel.
2. interpret the role of vocational education in the contemporary society.
3. interpret the implications for vocational education in dealing with exceptional children.
4. plan and coordinate vocational education activities with teachers in other areas or disciplines.
5. work effectively with students having learning problems.
6. work effectively with accelerated students.
7. supervise effectively club or extra-curricular activities.
8. react constructively to most problem situations dealing with students.
9. react constructively to most problem situations dealing with other professionals.
10. react constructively to most problem situations involving parents and lay personnel.
11. analyze problem situations in terms of their contributing elements.
12. manage an effective instructional program.
13. conduct action studies related to vocational education functions or activities.
14. relate vocational education activities to current curriculum trends.
15. relate laboratory activities and processes to current industrial, business, or social practices.
16. interpret the career development implications of vocational education activities.

17. administer standardized tests.

18. supervise or manage home room activities.

19. develop effective relations with various elements of the community.

20. describe behavior adequately enough to provide good records for future reference.

21. describe behavior adequately enough to communicate accurately to other assisting personnel.

22. develop appropriate anecdotal records.

23. develop and use participation charts.

24. develop and use sociograms for instructional purposes.

25. identify and provide for cultural differences in students.

26. work effectively with craft and advisory committees.

27. promote cooperative and independent learning.

28. interpret federal and state vocational legislation.

29. secure appropriate assistance from the principal, central office personnel, and building custodians.

30. secure services from companies which provide equipment repair, materials, and supplies.

31. develop and maintain employment data to assist in placing students who complete the program.

Section II

Program and Course Organization Behaviors of the Teacher

This section of program and course organization behaviors of the teacher relates to those activities associated with program planning and the organization of instruction. It deals with a variety of occupational analyses, development of plans, evaluation of instruction, coordinating of programs, and the development of student capabilities. The teacher behaviors in this section have been collected from an extensive review of the literature, observations of teacher performance, and an analysis of teaching requirements as well as a number of years of direct teaching experience on the part of the writer.

PROGRAM AND COURSE ORGANIZATION BEHAVIORS OF THE TEACHER

The teacher is able to:

1. analyze an occupation for its content to be used in the development of an instructional program.
2. analyze an occupation for the manipulative skills required to perform effectively in the occupation.
3. analyze an occupation for the cognitive or informational elements required to perform effectively in the occupation.
4. analyze an occupation for the affective or attitudinal elements contributory to effective pursuit of an occupation.
5. organize the manipulative, cognitive, and affective elements into a program of study.
6. select or design appropriate student activities in view of the objectives of the program.
7. integrate into an effective program the content and activities considered appropriate for preparation for one or more occupations.
8. state all course objectives in behavioral terms.
9. develop differentiated programs based upon the unique characteristics of the learner.
10. make appropriate changes in existing programs to meet the learning needs of learners in the program.
11. make effective program plans.
12. make effective lesson plans.
13. engage students effectively in the planning of selected learning experiences.
14. make effective intermediate range program plans.
15. make effective long range program plans.
16. coordinate learning activities effectively with other teachers.
17. integrate appropriate educational media elements into the program.

18. evaluate the effectiveness of program and course materials.

19. incorporate into the program the personal skills necessary for getting and holding a job.

20. provide experiences that simulate actual job conditions.

21. develop and use procedures which will enhance the development of the student's self-concept.

22. identify and communicate job and educational options available to the student.

23. identify and modify instructional methods as appropriate for the achievement of program objectives.

24. develop criterion reference materials appropriate for program objectives.

25. demonstrate flexibility in developing appropriate program alternatives with respect to materials, equipment and scheduling.

26. use advisory and craft committees effectively in course and program development.

27. carry out an effective follow-up program for course and program modification.

Section III

Teaching Methodology Behaviors of the Teacher

This listing of behaviors of the teacher associated with teaching methodology is the most extensive of all the listings in this compilation. This extended listing is due to the large number of teaching methodologies with which the teacher should develop competence. The methodologies and their associated teacher behaviors range from the selection of a method to the execution of the method. The methodologies include the class discussion, individualization of instruction, questionning techniques, non-directive teaching, use of media, unit procedures, group and line production procedures, and the use of a variety of kinds of instruction skills. The listing includes the traditional as well as the more contemporary forms of instructional procedures.

TEACHING METHODOLOGY BEHAVIORS OF THE TEACHER

The teacher is able to:

1. lead a class discussion effectively.
2. lead a seminar class session effectively.
3. work effectively with students on an individual basis.
4. work effectively with small groups in a planning session.
5. work effectively with large groups in a class planning session.
6. select appropriate activities in relation to specific goals to be achieved.
7. select appropriate activities in view of individual differences existent in the class.
8. coordinate activities with teachers in other disciplines within the school.
9. use proper questioning techniques with students on an individual basis.
10. use proper questioning techniques with students on a group or class basis.
11. use non-directive teaching procedures in working with students.
12. develop appropriate lesson plans for a variety of teaching situations.
13. structure a unit or segment of instructional content that extends over a period of several class sessions.
14. select and order films, tapes, and other media items appropriate for the instructional program.
15. properly introduce a film or other form of instructional material.
16. properly summarize a film or other film of instructional material after it has been presented.

17. constructively criticize or evaluate a comment, or other action by a student.

18. select appropriate methodologies to deal with differing kinds of instructional circumstances.

19. secure active participation on the part of a large proportion of the class or group.

20. contrive or design procedures for maximum student involvement on an individual basis.

21. contrive or design procedures for maximum student involvement on a group basis.

22. conduct a unit study on some selected topic appropriate for vocational education.

23. conduct a group project study appropriate for vocational education.

24. conduct a line production experience appropriate for vocational education.

25. conduct a class planning session.

26. conduct individual planning activities.

27. initiate problem solving activities in class.

28. summarize class discussions or group presentations.

29. properly demonstrate tool or machine operations.

30. develop and effectively use assignments sheets.

31. develop and effectively use information sheets.

32. develop and effectively use operations sheets.

33. develop and effectively use job sheets.

34. involve students in inquiring processes out in the community.

35. involve students with community projects or institutions in their pursuit of the program.

36. stimulate students to go beyond their present capability.

37. encourage and stimulate self initiate on the part of the student.

38. use programmed instruction effectively.

39. develop and carry on an effective vocational youth organization.

40. use cooperative work experience effectively.

41. develop and conduct an effective safety program.

42. involve the student as an active and responsible participant in the learning process.

Section IV

Laboratory Management Behaviors of the Teacher

A very important component of the work of a vocational teacher involves the issue of management. There is the management of the instructional program as well as the extensive physical surroundings including equipment, furniture, tools, and materials. The actual management process involves many real and concrete opportunities for the student to engage in rich and relevant educational activities. The range of behaviors for laboratory management in this listing include those that are related to inventorying, requisitioning, maintaining equipment, keeping student records, developing and managing safety programs, storing materials and projects, managing the students and the laboratory as well as many more.

LABORATORY MANAGEMENT BEHAVIORS OF THE TEACHER

The teacher is able to:

1. develop and manage an effective personnel organization plan within his/her laboratory.
2. develop and manage an effective inventory system.
3. develop and manage an effective ordering or requisitioning procedure.
4. develop and manage an effective program of tool maintenance.
5. develop and manage an effective program of machine maintenance.
6. develop and manage an effective program of laboratory furniture maintenance.
7. develop and manage an effective tool control system.
8. develop and manage an effective safety program.
9. develop and manage effective student records systems.
10. develop and manage an effective procedure for dealing with emergency-dangerous conditions.
11. maintain appropriate student conduct or behavior in class.
12. maintain an effective laboratory control system relative to non-class usage.
13. maintain an effective inspection and record procedure on all incoming materials, tools, and equipment.
14. develop and maintain an effective planning center.
15. develop and maintain effective project storage systems.
16. develop and maintain effective display facilities.
17. develop and appropriate laboratory plan (furniture, tools, equipment, assembly, etc.) conducive to an effective instructional program.

18. provide for optimum involvement of the students in the management of the laboratory.

19. develop and maintain an effective material storage and dispensing system.

20. prescribe adequate lighting standards for a variety of laboratory activities.

21. prescribe adequate acoustical standards for a variety of laboratory conditions.

22. prescribe an effective color coding system for use in the vocational laboratory.

23. identify proper floor treatment applications appropriate for a range of laboratory conditions.

24. manipulate the physical environment in accordance with the instructional needs of the program.

25. make minor repairs and adjustments on the normal laboratory equipment. (Perhaps a listing of these)

26. sharpen common cutting tools normally found in the laboratory. (Perhaps a listing of these)

37. manage the physical care and maintenance of the laboratory.

28. develop specifications for tools, equipment and supplies.

Section V

Educational Technology or Media Use Behaviors of the Teacher

This section is devoted to those behaviors that deal with the use of media or educational technology. It is an inventory of competencies that may be useful to the skilled teacher. A wide variety of media and equipment is dealt with in this section such as motion pictures, slides, video tape recorders, audio tape recorders, cassettes, panels, graphs, charts, bulletin boards, flannel boards, programmed instruction, chalkboards, and a variety of projectors. The competencies include the design, construction, and use of various forms of communication media. The listing is intended as a starting point and is not to be considered a complete or exhaustive catalog of such items.

EDUCATIONAL TECHNOLOGY OR MEDIA USE BEHAVIORS OF THE TEACHER

The teacher is able to:

1. set up and use a sound motion picture projector effectively in a variety of instructional capacities.
2. set up and use a tape recorder effectively in a variety of instructional applications.
3. set up and use a 2 x 2 slide projector effectively in a variety of instructional applications.
4. set up and use a 3¼ x 4 slide projector effectively in a variety of instructional applications.
5. set up and use a VTR effectively in a variety of instructional applications.
6. properly arrange the seating and other facilities in the room or laboratory for the effective use of instructional media.
7. use the chalkboard effectively.
8. develop appropriate and effective transparencies for the overhead projector.
9. preview and effectively plan for the presentation of a motion picture.
10. use effectively a number of different lettering devices.
11. take good pictures using a 35 mm camera.
12. use the opaque projector effectively in a wide variety of applications.
13. use a flannel board effectively.
14. design and develop effective flannel board presentations.
15. use programmed instructional materials effectively.
16. select appropriate programmed instructional materials.
17. use chalkboard drawing tools effectively.
18. use effectively the field trip as an instructional procedure.

19. use effectively guest speakers as an instructional procedure.

20. use effectively panels, graphs, and charts in the instructional process.

21. develop accurate and attractive audio-visual materials.

22. design appropriate and effective bulletin boards and displays.

23. develop appropriate models and use them effectively.

24. collect and use effectively illustrative samples.

25. use laboratory items effectively in presentations.

26. use instructional television effectively.

Section VI

Student Performance Evaluation Behaviors of the Teacher

This set of teacher behaviors is related to the important area of student evaluation. The items range over a broad spectrum of competencies associated with the work of the vocational teacher. They include evaluation competencies related to the affective, cognitive, and manipulative functions. Other items deal with test construction, grade assignment, interpretation of scores, administration of tests, use of progress charts, and the drawing of appropriate inferences or conclusions from evaluation data. The area of evaluation includes a number of critical competencies that are useful in teaching and program developing activities as well as in providing important feed-back information to the student.

STUDENT PERFORMANCE EVALUATION BEHAVIORS OF THE TEACHER

The teacher is able to:

1. evaluate student performance accurately on selected manipulative tasks.
2. evaluate student development effectively in the cognitive area of the program.
3. evaluate student development effectively in the affective areas.
4. identify areas of needed assistance in instruction for students of varying levels of ability.
5. assess background deficiencies in students as related to the program of study.
6. write or construct appropriate evaluation items dealing with the cognitive domain.
7. write or construct appropriate evaluation items in the affective domain.
8. develop objective measures to assess student manipulative performance.
9. develop and appropriate grade assignment for students based upon available evidence.
10. make item analyses for the purpose of evaluation process improvement.
11. develop evaluation instrumentation appropriate for use with a computer scoring and analysis system.
12. develop an effective evaluation instrument for students to use in assessing teacher performance.
13. draw accurate and appropriate inferences from student performance evaluation data.
14. use information from student performance evaluations to identify needed changes in program and instructional procedures.
15. select and administer standardized instruments in accordance with prescribed procedures.

16. interpret the results of selected standardized instruments accurately and appropriately.

17. objectively discuss grades with students.

18. develop instrumentation for assessing and certifying student skills upon completicn of the program.

19. use performance based curriculum and criterion reference measures.

20. use and interpret effectively student progress charts.

Section VII

Observation Behaviors of the Teacher

One of the most important areas of teacher behaviors relates to the process of observation. The observation of students is a skill that each teacher must develop with a sensitivity that will permit maximum planning and decision-making on his/her part. The great teacher is one that has acquired or developed the powers of observation associated with the diverse dimensions of student behavior.

The listing in this section is largely devoted to the identification of various forms of student behavior that may provide clues for the teacher to use in instructional planning and adjustment. Other observations relate to physical conditions in the laboratory. The beginning teacher has had little time or training in the development of this skill.

OBSERVATION BEHAVIORS OF THE TEACHER

The teacher is able to:

1. identify students having difficulties with machine operations.
2. identify students experiencing difficulties with tool selection.
3. identify students performing beyond the normal class expectations.
4. identify students performing below the normal class expectations.
5. identify students experiencing social adjustment problems.
6. identify students experiencing hearing or seeing problems.
7. identify students experiencing body coordination problems.
8. identify students involved in "self-concept" difficulties.
9. identify students needing attention or assistance on manipulative tasks.
10. identify students having learning difficulties.
11. identify students whose abilities are beyond the class activities.
12. develop effective observation records.
13. detect unsafe behavior on the part of a student.
14. detect certain forms of malfunctions on equipment.
15. detect unsafe conditions existing in the laboratory.
16. identify students experiencing difficulties with tool use or manipulation.
17. identify laboratory management problems existing in a facility.

18. identify strengths and weaknesses observable in the students.

19. identify peer groupings in a class.

20. identify students striving for independence from adults.

21. identify students experiencing difficulties in moving from the concrete to the abstract.

22. identify students needing recognition and acceptance.

23. identify students exhibiting strong dependence behaviors.

24. identify individual needs.

25. identify group needs.

26. identify patterns of individual behavior.

27. identify patterns of group behavior.

28. identify students whose abilities are limited in terms of the requirements of the program.

29. monitor the entire class while working with individuals or small groups.

30. identify students experiencing reading difficulties.

31. identify students having problems with mathematics.

32. identify students having difficulties with measuring operations or processes.